Program Executive Office
C4I and Space

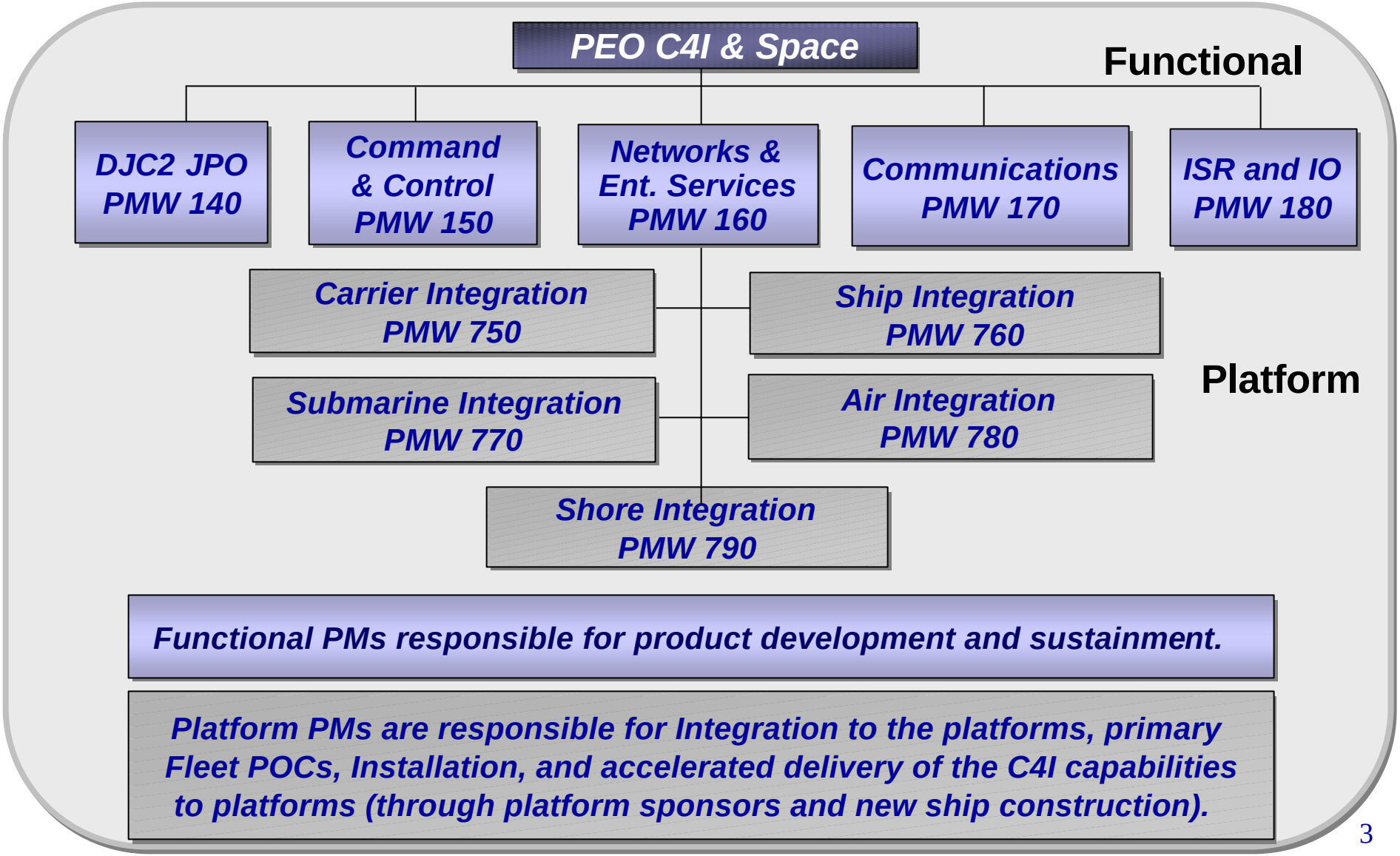
Building the Navy's C4I "Strategic Capability"

NDIA Industry Conference
9 November, 2005
Mr. Dennis Bauman
Program Executive Officer
C4I and Space

Agenda

- Organizational Alignment Update
- FY06 Focus Areas
- C4I Integrated Roadmap
- JTRS

Organizational Structure
PEO C4I and Space



Internal Reorganization Results
What We've Accomplished

- Stood up Platform program offices
  - Delivering integrated C4I products
  - Experienced management team meeting current and future fleet needs
  - Realigned Installation responsibilities to PEO C4I & Space
- Functional Program Offices
  - Increased cross program integration
  - LSI contracting progress

2006 Focus Areas

- Make our Organizational Precepts a Reality
  - New Construction and Capabilities Focus
- Improve Program Execution
  - Planning, installation, logistics and life-cycle support
- Implement a Complete C4I Integrated Roadmap
  - Full enablement of roadmap potential
- Achieve Greater Acquisition Results
  - Impact the process earlier
- Drive Consistency in System Engineering and Development
  - LSI contracting (significant, not exclusive factor)
- Focus on the Business of Operating the PEO
  - Meaningful metrics, Lean/Six Sigma

Lead System Integrator (LSI)

Priority for Platform PMWs

Goals

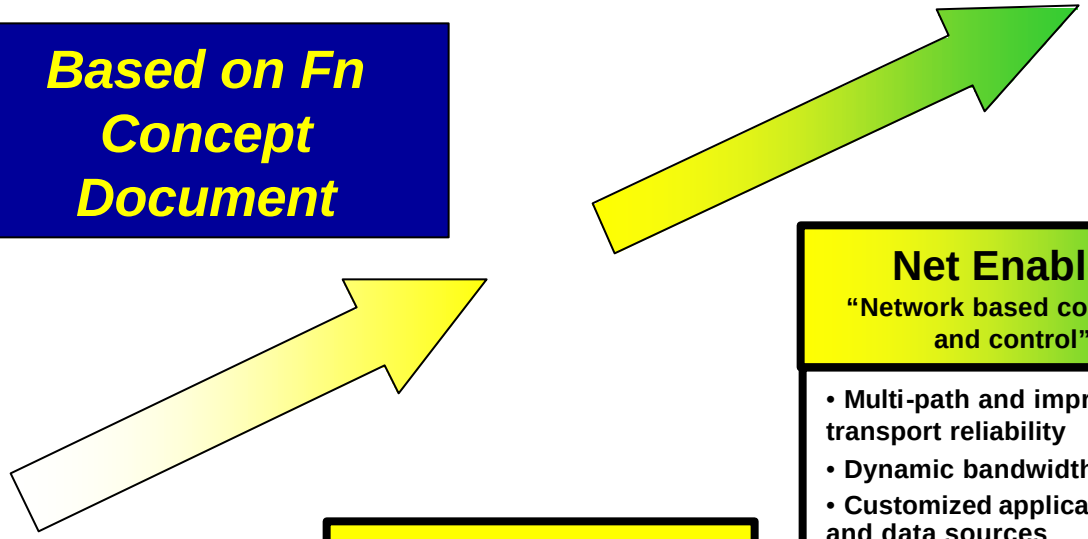
- Reduced risk
- Increased use of competition
- Deliver more integrated products

Integrated C4I Roadmap Vision

- Allow us to provide *capabilities-based* integrated products for the fleet
- Serve as a mechanism to synchronize delivery, ensuring the planning and programming timelines of systems and infrastructure are logically aligned
- Reveal gaps and overlaps in capability that we must address in our current systems

C4I Roadmap

Based on Fn Concept Document



Full IT21
"Online"

- IP Reach Back
- Local Area Networks
- Wideband Receive
- RF Management
- Survivable comms

Level 0

Today

Net Connected
"Improved decision making"

- Web-based services
- Improved network reliability and performance
- Increased bandwidth
- Improved coalition operations and data sharing
- Tailorable situational awareness tools
- Standardized data exchange between domains
- Defense in depth

Level 1

FY07

Net Enabled
"Network based command and control"

- Multi-path and improved transport reliability
- Dynamic bandwidth mgmt
- Customized applications and data sources
- Common infrastructure and data exchange standards
- Improved data exchange across domains
- Enterprise management for asset analysis and repair
- Initial knowledge management and automated decision aids
- Assured sharing
- Distributed command and control operations
- Modular and open architecture

Level 2

FY10

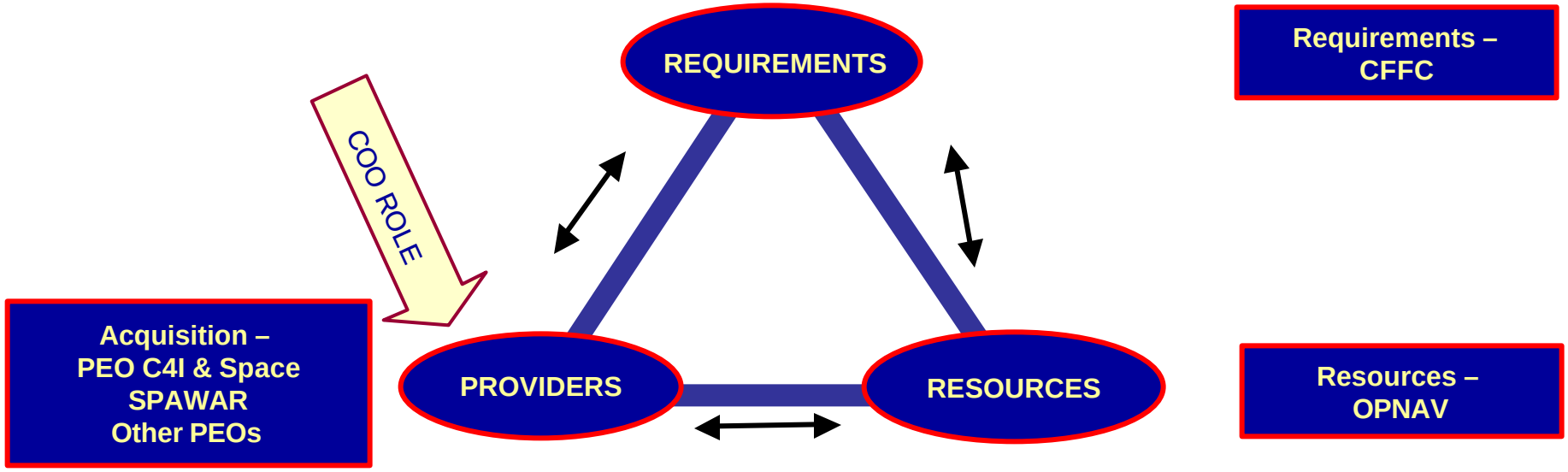
Fully Net Ready
"Decision-making under undesirable conditions"

- Robust, reliable communication to all nodes
- Reliable, accurate and timely information on friendly, environmental, neutral and hostile units
- Storage and retrieval of authoritative data sources
- Robust knowledge management capability with direct access ability to raw data
- User-defined and shareable SA
- Distributed and collaborative command and control
- Automated decision aids to enhance decision making
- Information assurance
- Seamless cross-domain access and data exchange.
- Interoperability across all domains and agencies
- Autonomous and disconnected operations
- Automatic and adaptive diagnostic and repair
- Modular architecture to expedite new capabilities

Level 3

FY14

NCW Enterprise



Roadmap allows the Community Triad to synchronize efforts

- **Assists the Fleet in prioritizing requirements**
- **Facilitates educated decisions by sponsors to defend appropriate resources**
- **Guides PEO C4I & Space to acquire/develop/field the correct capability at the correct time**

Supporting Activities to the Roadmap

- Working with Fleet and OPNAV to define baseline definition for NCW for each ship class
- Use tool to improve POM and SHIPMAIN processes
- PEO C4I and Space reorganized around capabilities and platforms rather than stovepiped systems
- Development of Network-Centric Enterprise Solutions for Interoperability (NESI) as Roadmap implementation strategy and yardstick

PEO C4I & Space Summary

- PEO C4I and Space Organization
  - Internally aligned and externally recognized as the single C4I provider for new construction and Fleet Modernization Program (FMP)

- Operating for Effectiveness and Efficiency
  - Reorganized for optimal performance
  - Using Lead Systems Integrator, Lean Six Sigma, and the C4I Integrated Roadmap to maximize efficiencies

Joint Program Executive Office
Joint Tactical Radio Systems

JTRS Status and Way Ahead

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JTRS Background
A Transformational Enabler

Transformation's Outcome: "fundamentally joint, network-centric, distributed forces capable of rapid decision superiority and massed effects across the battlespace"
- Transformation Planning Guidance
April 2003

- Four pillars of Transformation
  - Strengthening Joint Operations
  - Exploiting U.S. Intelligence Advantages
  - Experimenting in Support of New Warfighting concepts
  - Developing Transformational Capabilities

Joint, end-to-end, network-centric warfighting capabilities are essential!

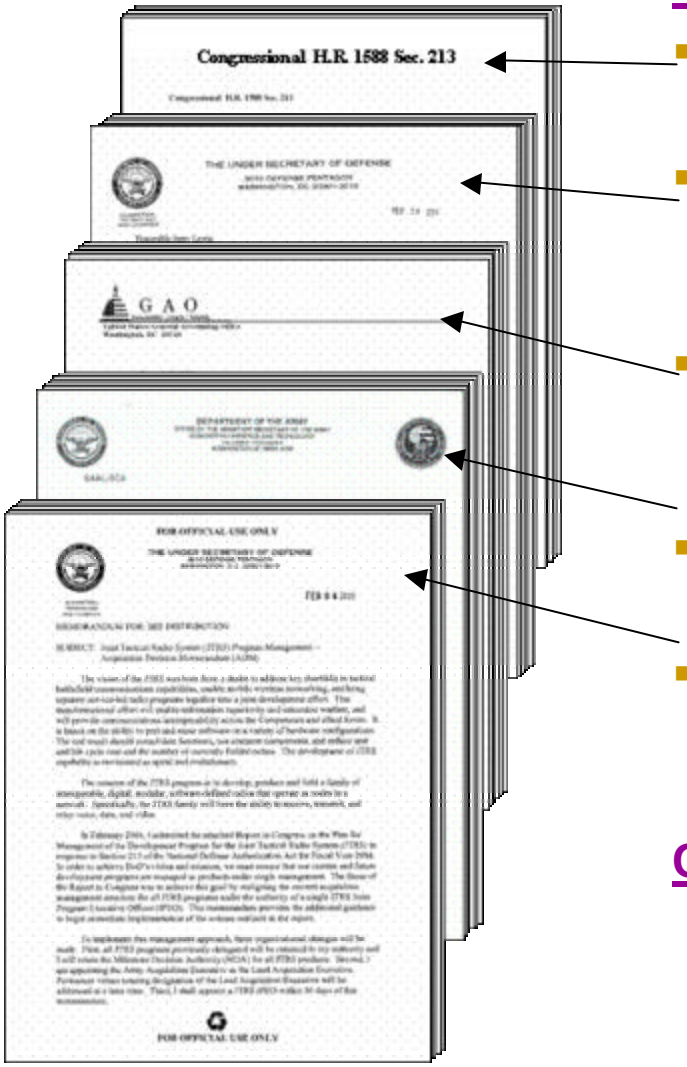
JTRS Background
A Transformational Enabler

- Seven pillars of the Global Information Grid (GIG)
  - Transformation Communications Architecture
  - Global Information Grid – Bandwidth Expansion
  - ~~Teleports~~
  - JTRS – "the first tactical mile"
    - Mobile ad-hoc networking and Cross-banding
  - GIG Enterprise Services (GES)/Net-Centric Enterprise Services (NCES)
  - Information Assurance (IA) initiatives
  - Internet Protocol Version 6 implementation
- Without JTRS, the tactical warfighter is not connected to the GIG

JTRS makes the goals of Transformation a warfighting <u>reality</u> for the Joint warrior at the tactical edge

JTRS Background

JPEO Establishment Drivers



Sources

- H.R. 1588 Section 213 of the National Defense Authorization Act for Fiscal Year 2004
- Report on the plan for implementation of management of the development program for Joint Tactical Radio System, 24 February 2004
- GAO-03-879R Joint Tactical Radio System Program - Challenges and risks with the JTRS program, 08 August 2003
- Response to GAO draft report "Challenges and risks associated with the JTRS Program"
- Acquisition Decision Memorandum (ADM), "Joint Tactical Radio System (JTRS) Program Management," 04 February 2005

Core Findings Need to:

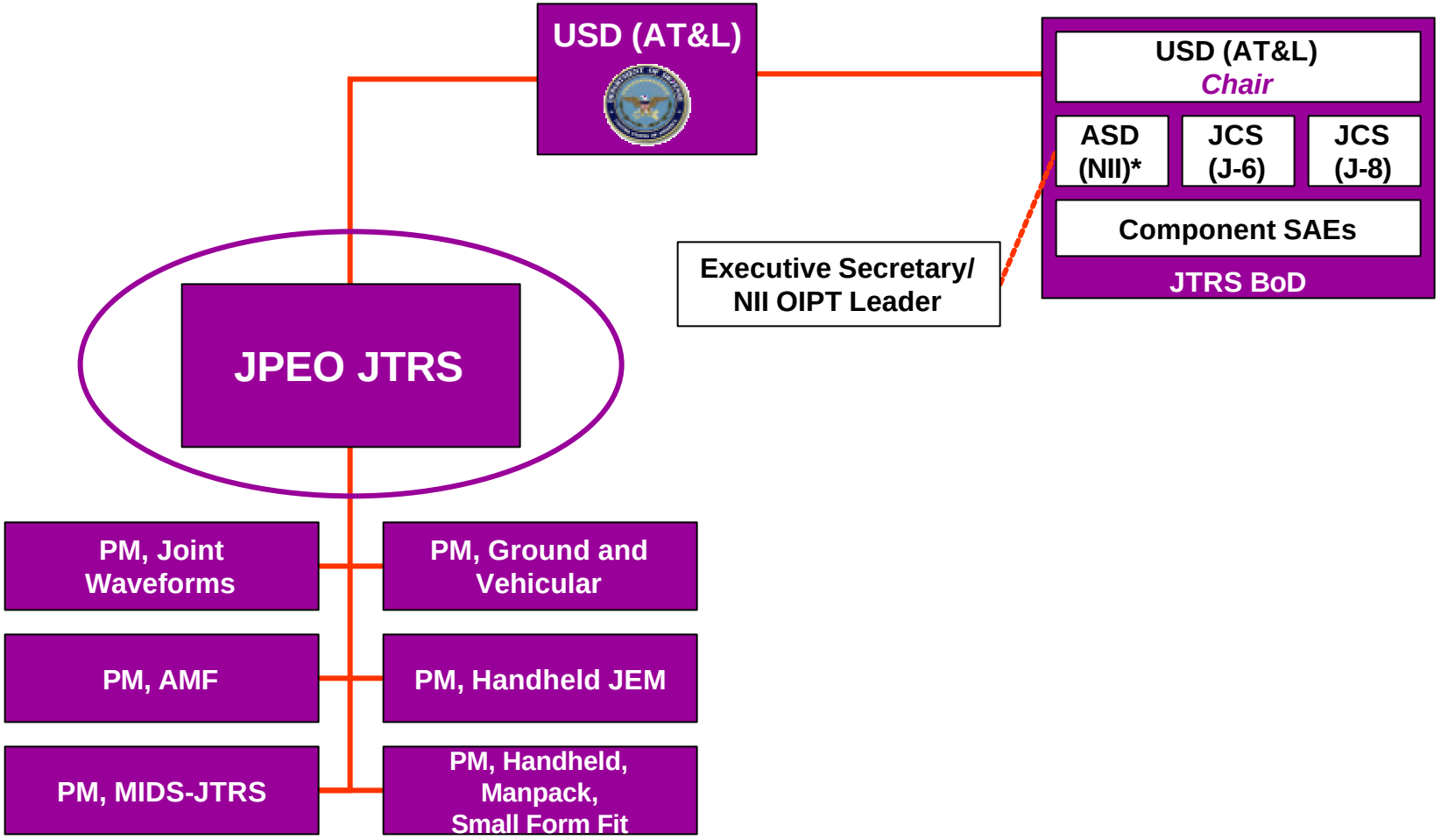
- "Strengthen joint management structure …"
- "Ensure that the key enablers … are adequately addressed"

JTRS Background
Milestones Achieved

- 4 February 2005, JTRS ADM issued
- USD (AT&L) Milestone Decision Authority for all JTRS Products
- Established a JPEO for the JTRS program
  - Reports directly to USD (AT&L)
- Empowered JPEO with full directive authority for:
  - All waveform, radio, and common ancillary equipment development
  - Systems engineering
  - Performance and standards
  - R&D funding
- Directed JPEO to immediately:
  - Assess all Clusters and make recommendations
  - Develop an organizational structure
- 14 October 2005, JPEO JTRS charter signed by USD (AT&L)

JTRS Background

JPEO JTRS Organization – Reporting Authorities



* = IAW DoD Directive 5144.1, dated 2 May 2005, Subject: Assistant Secretary of Defense for Networks and Information Integration/DoD Chief Information Office (ASD (NII)/DoD CIO)

Actions Taken
First Six Months

- Assessed Clusters 1 and 5, AMF and status of waveforms
- Initiated draft replan of Clusters 1 / 5 / AMF / Waveforms
  - Reduced high risk programs to moderate risk, incremental development approach while maintaining current requirements baseline
- Established and strengthened an overall JTRS management structure
  - Created a centralized JPEO organization with clear R&R, accountability and reporting
  - Established processes for overall systems engineering across programs

Actions Taken
First Six Months (con't)

- Engaged key, dependent transformational programs to align to their requirements
  - FCS - MUOS - F/A-22 - CVN-21
  - BSN - Flight Plan - F/A-35
- Convened senior DoD leadership to provide strategic direction
  - Confirmed IP-networking is critical for Defense Transformation
  - Directed JPEO JTRS and key DoD stakeholders (OSD/JCS/Services) to revalidate requirements and develop potential alternatives to more affordably deliver IP-networking capabilities

JTRS Challenges

- Networking is Hard!
- Expectation Management is difficult
- Management of large, complex, joint programs is difficult

Ongoing Activities

- Requirements review with J6 / J8, OSD and Service Stakeholders
- Industry input (Requests For Information)
  - Insertion of additional commercial technologies
- Airborne Domain Networking
- Ground Domain Networking

All activities aligned to provide JTRS the most effective and efficient path to transformational networking capability

JTRS Way Ahead
Near-term Strategy

- Execute remaining actions of 4 Feb 05 ADM
  - Assess remaining Clusters
- Replan Cluster and Waveform developments
  - Strategize on JTRS JCIDS process to support incremental capability development and delivery
  - Assess technology base
  - Develop an incremental acquisition strategy for DAB approval

Program Priorities: Incremental – Executable – Open

JPEO JTRS Summary

- Secure mobile ad-hoc wideband networking and cross-banding are the key Transformational enablers
  - JTRS brings the advantages of NCW to the warfighter
- JTRS is a *journey* to Transformation
  - Key for success is incremental drops of increasing capability
- We need to manage expectations
  - Total cost of fielding this capability is much greater than anyone probably envisioned at the start
  - Many stakeholders across different warfighting domains with different requirements
- JTRS is *hard*!
  - Complex endeavor with difficult technical and programmatic challenges
  - Different business models for developing and fielding this capability must be explored